

## CLAIMS:

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1. ~~A method of reconciling multiple inputs to a processor, comprising:~~

receiving a plurality of inputs at a processor;

providing an output from the processor to an interface, the output based on the plurality of inputs, wherein the output has a degraded response when more <sup>a</sup> than one of the plurality of inputs is asserted simultaneously and an increased response when one of the plurality of inputs is asserted significantly more than the other inputs.

2. The method of claim 1, wherein plurality of inputs are represented by an input vector in a coordinate space, and the output response is a maximum when the vector lies along a coordinate axis of the coordinate space, and the output response is a minimum when the vector lies along a diagonal in the coordinate space.

3. The method of claim 2, wherein the coordinate space is a two-dimensional coordinate space, and the inputs are an x-input and a y-input.

4. The method of claim 2, wherein the output response decreases monotonically as the input vector direction changes from an alignment along an axis to an alignment along a diagonal.

5. The method of claim 4, wherein there is an area in the vicinity of the diagonal wherein the output response is zero.

6. The method of claim 2, wherein the plurality of inputs controls an animation, and wherein the output response is moving the animation forwards and backwards.

7. The method of claim 6, wherein a single user controls the plurality of inputs.

8. The method of claim 6, wherein the plurality of inputs are summed, and then the summed value is degraded to form the output response, the degrading based on the angle  $\theta$  the input vector forms with the nearest coordinate axis, wherein for small angles  $\theta$  the output response is degraded little or none, whereas for angle  $\theta$  near a diagonal the output response is degraded significantly.

9. The method of claim 8, wherein the output response is determined by multiplying the summed inputs by a function  $F$  wherein  $F$  is a function of the angle  $\theta$ .

10. The method of claim 2, wherein a first input controls a first animation, and a second input controls a second animation.

11. The method of claim 10, wherein the first input produces an output which moves the first animation backwards and forwards, and the second input produces an output which moves a second animation backwards and forwards.

12. The method of claim 2, wherein the first input produces a first type of output response, and the second input produces a second type of output response.

13. The method of claim 12, wherein the first type of output response is displaying a picture of a different room within a house, and the second type of output response is displaying a room within a different house.

14. The method of claim 2, wherein the plurality of inputs are received from a plurality of users, each user controlling at least one input.

15. The method of claim 14, wherein the plurality of users are all controlling the same output, wherein the more the users act individually the more the output responds, and the more the users act simultaneously the more the output is degraded.

16. A method of providing feedback to at least one operator controlling a plurality of inputs:

receiving a plurality of inputs;

providing an encouragement when the inputs are asserted individually; and

providing a discouragement when the inputs are asserted simultaneously.

17. A method of control comprising:

receiving  $n$  inputs where  $n$  is greater than 1;

representing the  $n$  inputs as an vector in an  $n$ -dimensional coordinate space;

producing an output response, wherein the output response decreases when an angle  $\theta$  increases, the angle  $\theta$  being the angle that the input vector forms with

the nearest axis of the n-dimensional coordinate space, the output response being a minimum when the vector lies along a diagonal of the coordinate space.

18. A method of control comprising:

- receiving n inputs where n is greater than 1;
- representing the n inputs as an vector in an n-dimensional coordinate space;
- producing an encouragement when an angle theta increases, providing a discouragement when the angle theta decreases, the angle theta being the angle that the input vector forms with the nearest axis of the n-dimensional coordinate space.

19. An article of manufacture comprising:

- a) a memory device; and
- b) instructions stored on said memory device, said instructions performing a method of reconciling multiple inputs, including:
  - receiving n inputs where n is greater than 1;
  - representing the n inputs as an vector in an n-dimensional coordinate space;
  - producing an output response, wherein the output response decreases when an angle theta increases, the angle theta being the angle that the input vector forms with the nearest axis of the n-dimensional coordinate space.

20. A method of reconciling multiple inputs to control an animation, comprising:

- receiving a plurality of inputs at a processor;

providing an animation output from the processor to a user interface by summing the plurality of inputs, wherein the animation moves forwards when the output is positive and the animation moves backwards when the output is negative.

Sub a2  
21. ~~The method of claim 20, wherein the output is degraded when more than one of the plurality of inputs is asserted simultaneously and the output has an increased response when one of the plurality of inputs is asserted significantly more than the other inputs.~~

22. The method of claim 21, wherein the plurality of inputs are an x-input and a y-input.

Sub a3  
23. ~~A method of reconciling multiple inputs to control an animation, comprising:~~  
receiving  $n$  inputs at a processor, wherein  $n$  is at least 2;  
displaying an animation  $n$  a user interface by moving through an  $n$ -dimensional grid of animation frames in a direction based on the  $n$  inputs.

24. ~~The method of claim 23, wherein the animation response is degraded when more than one input is asserted simultaneously, and the animation response increases when on input is asserted substantially more than the other inputs.~~

25. A computer system for reconciling multiple inputs and providing an output to an interface, comprising:

at least one input device controlled by at least one user;

a storage device storing data;

a display;

a frame buffer coupled to the display storing images to be shown on the display;

a processor coupled to the storage device, the at least one input device and the frame buffer, wherein the processor

(a) receives a plurality of inputs from the at least one input device,

(b) combines the inputs to form an output response and degrades the output response when multiple inputs are asserted simultaneously, and increases the output response when one input is asserted substantially more than the other inputs;

(c) accesses the data in the storage device, and

(d) outputs the data to the frame buffer in accordance with the output response.

26. The system of claim 25, wherein the processor is connected to a communications channel and the processor receives at least one of data and instructions over the communications channel.

27. A computer program product for reconciling a plurality inputs, comprising:

computer usable code for producing an output response based on the plurality of inputs, and degrading the output response when the inputs are asserted simultaneously and increasing the output response when one input is asserted substantially more than the other inputs.